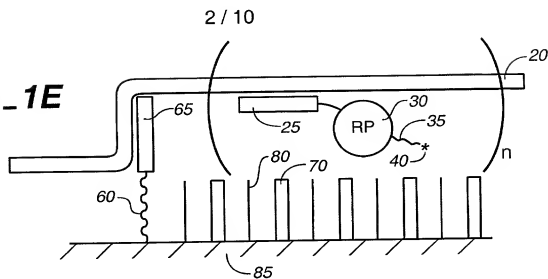
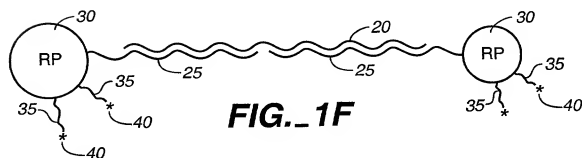
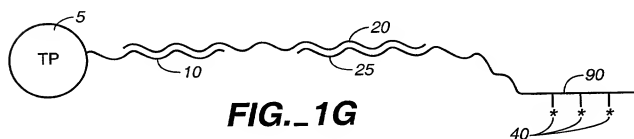
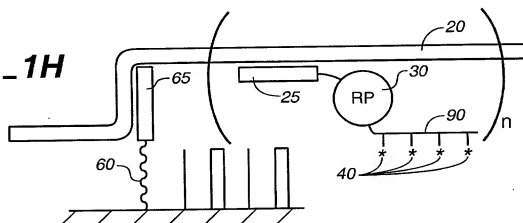
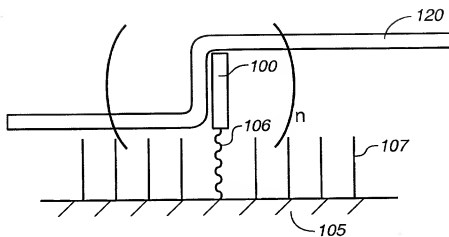
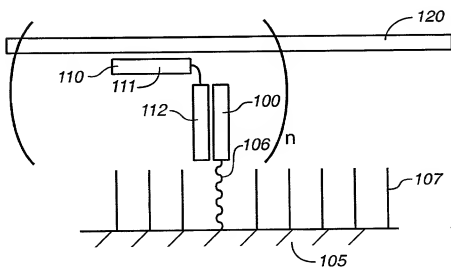
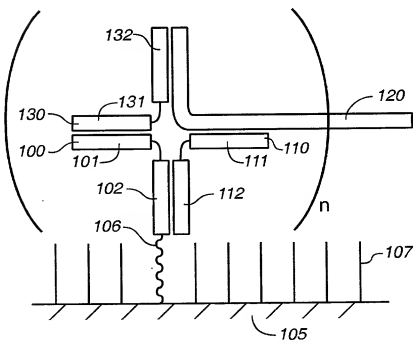


FIG. 1E**FIG. 1F****FIG. 1G****FIG. 1H**

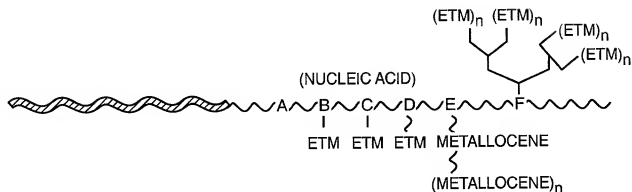
3 / 10

**FIG. 2A****FIG. 2B****FIG. 2C**

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 = FIRST HYBRIDIZABLE PORTION OF LABEL PROBE

 = RECRUITMENT LINKER



A = NUCLEOSIDE REPLACEMENT

B = ATTACHMENT TO A BASE

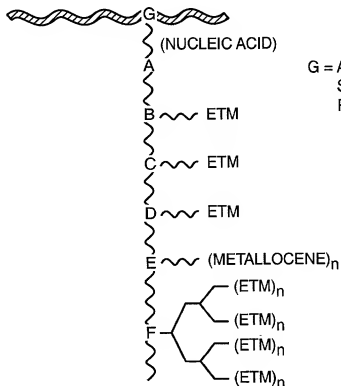
C = ATTACHMENT TO A RIBOSE

D = ATTACHMENT TO A PHOSPHATE

E = METALLOCENE POLYMER, ATTACHED TO A RIBOSE, PHOSPHATE, OR BASE

F = DENDRIMER STRUCTURE, ATTACHED VIA A RIBOSE, PHOSPHATE OR BASE

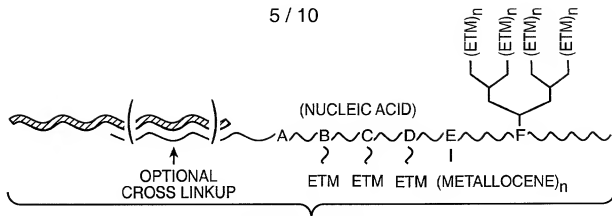
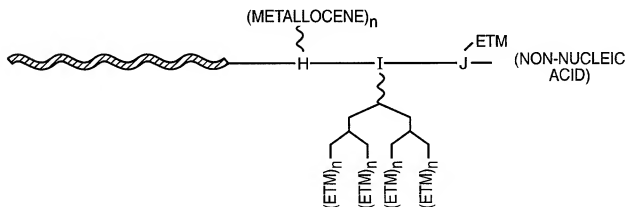
FIG._3A



G = ATTACHMENT VIA A "BRANCHING STRUCTURE", THROUGH RIBOSE, PHOSPHATE OR BASE

FIG._3B

5 / 10

**FIG. 3C**

H = ATTACHMENT OF METALLOCENE POLYMERS

I = ATTACHMENT VIA DENDRIMER STRUCTURE

J = ATTACHMENT USING STANDARD LINKERS

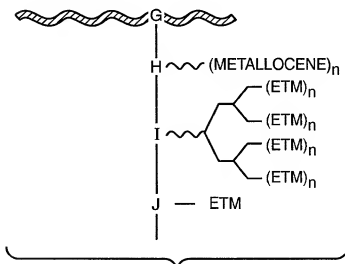
FIG. 3D**FIG. 3E**

FIG. 4

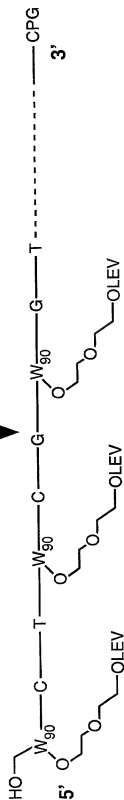
FIG. 4A

FIG. -4B

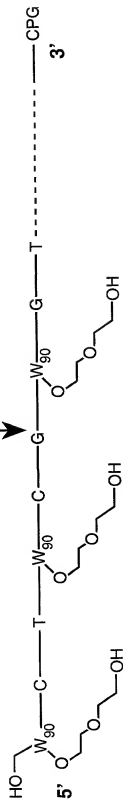
FIG. _4C

FIG. 4A

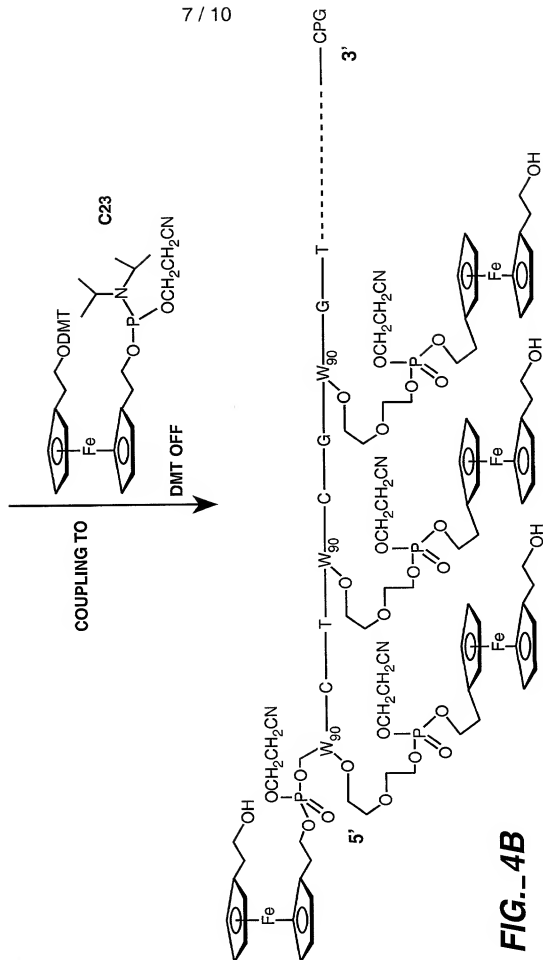
STANDARD DNA SYNTHESIS USING W90

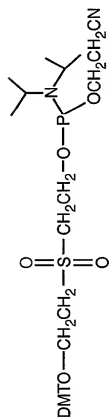


NH₂NH₂ / ACETIC ACID / PYRIDINE



7 / 10



H₂

DMT OFF / CLEAVAGE AND DEPROTECTON

THIS PROCESS CAN BE REPEATED UNTIL THE DESIRED # OF FERROCENE IS OBTAINED, AND THEN HYDROXY GROUPS ON FERROCENE ARE CAPPED USING THE LEFT PHOSPHORAMIDITE IN ORDER TO INCREASE THE SOLUBILITY OF FERROCENE IN WATER.

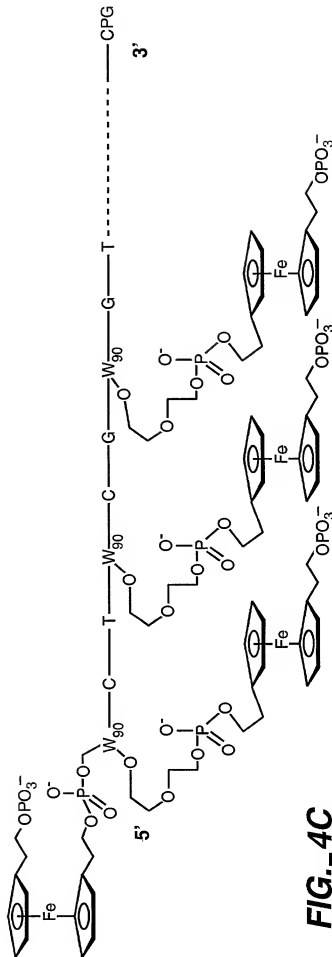
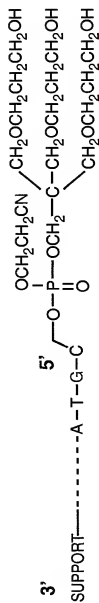
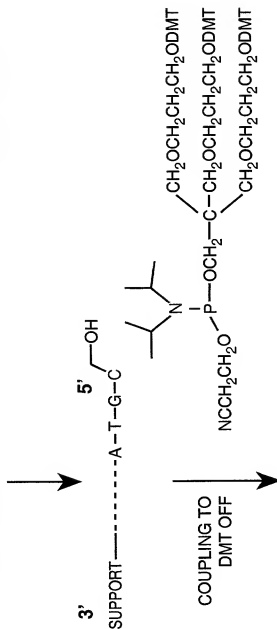


FIG. 4C

FIG._5

FIG._5A

STANDARD DNA SYNTHESIS



THIS COUPLING PROCESS CAN BE
REPEATED UNTIL DESIRED # OF THE
BRANCHING POINTS

FIG._5A

FIG._5B

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